# NIII News in Health

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Inside News: 3 Symptoms of COPD... 4 Experimental Cocaine Vaccine... Alzheimer's Care... Glossary of Genetic Terms

Coping with Grief
When a Loved One Dies

When someone you love dies, your world changes. You may feel numb, shocked or frightened. You may feel depressed and have trouble concentrating. You may feel guilty for be-

All of these feelings are normal. There is no right or wrong way to mourn.

ing the one who is still alive.

Each year, about
2.5 million people
die nationwide. Every
death leaves behind an
average of 4 or 5 grieving survivors. For most,
extreme feelings of grief
begin to fade within 6
months after the loss.

But some **bereaved** people may continue to struggle for years to move on with their lives.

It's often helpful to talk with family and friends about the person who's gone. People sometimes hesitate to mention a dead person's name or discuss the loss, because they don't want to cause pain. But it can help when people share their feelings.

Researchers have tried for decades to identify different stages of grief. They've found that the grieving process differs for every individual. It's affected by how attached you felt to the person who died; whether you were a parent, child or spouse; how the death occurred and other factors.

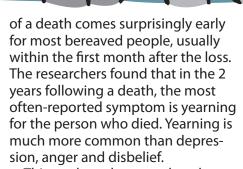
One study found that acceptance



### **Definitions**

#### Bereaved

A person who's experienced the death of a loved one.



This study and many others have found that if symptoms aren't tapering off by 6 months after the loss, it may be a sign of a more serious problem, sometimes called complicated grief. People with complicated grief are at risk for major depression, substance abuse, post-traumatic stress disorder and suicidal thoughts and actions.

"Prolonged grief, or complicated grief, is seen in a small portion of bereaved individuals—about 10% or 20%. Their symptoms are disruptive to their lives and daily functioning," says Dr. Mary-Frances O'Connor, a psychologist at the University of

California, Los Angeles. "These people may experience extreme yearning, loneliness and a feeling that life will never have any meaning. They may have intrusive thoughts and feel ongoing anger or bitterness over the death."

O'Connor's brain imaging studies have found differences in brain activity between bereaved people with complicated grief and those who are coping well with

their loss. Both groups showed pain-related brain activity when they looked at photos of their loved ones. But only those with complicated grief showed activation in parts of

the brain's reward-processing centers.

"That may seem strange. But other studies have shown that when people are very attached to their loved ones, they feel rewarded when they are with them," O'Connor says. People with complicated grief may still feel very attached, and so feel "rewarded" by seeing photos of their loved ones. Those who adapt well, O'Connor suggests, have somehow accepted the reality that the person is not physically with them anymore. "They still feel sad, but they no longer yearn for the person in the same way," she says.

Complicated grief is difficult to treat. Some evidence suggests that

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a specialized talk therapy can help people with complicated grief improve faster and better than tradi-



# Wise Choices Coping with Loss

- Take care of yourself. Try to eat right, exercise and get enough sleep. Avoid bad habits—like smoking or drinking alcohol—that can put your health at risk.
- Talk to caring friends. Let others know when you want to talk.
- It might help to talk with others who are also grieving. Check with hospitals, religious groups, hospices and local government agencies.
- Don't make major changes right away. It's smart to wait a while before making big decisions like moving or changing jobs.
- Talk to your doctor. If you're having trouble with everyday activities, like getting dressed or fixing meals, see your health care provider.
- Consider additional support. Sometimes short-term talk therapy can help.
- **Be patient.** Mourning takes time. It's common to have roller-coaster emotions for a while.

tional talk therapy. This experimental therapy, called complicated grief treatment, involves vividly recalling the death with a trained grief counselor and having an imaginary conversation with the person who died. Researchers are now testing whether complicated grief treatment might work even better in combination with antidepressants or other approaches.

Some studies show that people who've been caregivers for a relative with a long-term illness may adapt relatively quickly to the death. Dr. Richard Schulz, a social psychologist at the University of Pittsburgh, studies caregivers for relatives with Alzheimer's disease. He and his colleagues found that most did remarkably well after their loved one died. "Their level of depression, which was very high during the caregiving phase before the death, returned to almost normal levels within 6 months after the death," Schulz says.

People caring for someone with a long-term illness may begin the grieving process while their loved one is still alive. "The death may mark the end of suffering for the caregivers and the patients," Schulz says. "The death also eliminates much of the burden associated with daily care in the home. It frees up time, so the person can now re-engage in social contacts they might have had prior to taking on the caregiver role."

But Schulz's research also found that about 1 in 5 caregivers had persistent, severe depression and other troubling symptoms more than 6 months after the death. Many of those who struggled to adapt were



### Web Links

For links to further information about coping with loss, see this story online: http://newsinhealth.nih.gov/2009/November/feature1.htm

either highly depressed before the death or had positive feelings about their caregiving role.

Treating depression before the death seemed to help caregivers cope afterward. People also did better if they'd participated in a program that helped them cope while their relative was still alive. "The program provided group support, information about the disease and other resources," says Schulz. "It was not designed to help people after the death, but that was an unexpected benefit. The quality of the caregiving experience may have helped them prepare for the death indirectly."

Some studies have found that when patients, doctors and family members directly address the prospect of death before it happens, it helps survivors after the death. "If you're in a long-term disease situation where death is likely, it's helpful to engage in end-of-life care planning, to make it easier to deal with the death once it occurs," says Schulz.

NIH-funded scientists continue to study different aspects of the grieving process and to search for new treatments. Researchers are also looking at how cultural attitudes and beliefs about death can affect grief and mourning.

Remember, although the death of a loved one can feel overwhelming, most people can make it through the grieving process with the support of family and friends. Take care of yourself, accept offers of help or companionship from those around you, and be sure to get additional help or counseling if you need it.

It may take time. The process will be difficult. But you can eventually adjust to life after someone you love has died.

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# **Breathing Problems?**

### Learn to Recognize the Symptoms of COPD

Did you know that chronic obstructive pulmonary disease (COPD) is the 4th leading cause of death in the United States? It kills more than 120,000 Americans each year—that's 1 death every 4 minutes—and causes serious, long-term disability. While more than 12 million people are currently diagnosed with COPD, doctors believe another 12 million don't even know they have it. Learn to recognize the signs of COPD now so you're not in the dark.

COPD is a lung disease that makes it hard to breathe. It usually worsens over time. In people who have COPD, the airways—the tubes that carry air in and out of your lungs—narrow, making it hard to get air in and out. It can cause coughing that produces large amounts of mucus (a slimy substance), wheezing, shortness of breath, chest tightness and other symptoms.

Airways and air sacs in healthy lungs are elastic—they bounce back to their original shape after being stretched or filled with air, just the way a new rubber band or balloon does. In COPD, the airways and air sacs are damaged, so that they no



### **Wise Choices** Signs and Symptoms of COPD

- Constant coughing, sometimes called "smoker's cough"
- Shortness of breath while doing activities you used to be able to do
- Wheezing (a whistling or squeaky sound when you breathe)
- Chest tightness
- Feeling like you can't breathe or can't take a deep breath

longer bounce back to their original shape (a condition called emphysema). Or the airways become thicker than normal, with increased mucus production (called bronchitis).

Most people who have COPD are at least 40 years old when symptoms begin. But people younger than 40 can also develop the disease. Unfortunately, most people who are at risk have never even heard of it and, in many cases, don't even realize that the condition has a name.

"The lung has a lot of reserve, and it takes a fair amount of damage before it produces symptoms," explains Dr. Gail G. Weinmann, deputy director of the Division of Lung Diseases at NIH's National Heart, Lung and Blood Institute. "People are probably making adjustments to their lifestyles to accommodate without even realizing it. They often attribute the first symptoms to things like aging, gaining weight or being out of shape. And because of this, they don't even recognize the symptoms."

Cigarette smoking is the leading cause of COPD in the United States, but long-term exposure to other lung irritants—such as chemical fumes or heavy dust—can contribute to COPD as well.

"Smokers and ex-smokers account for most cases of COPD in this country," Weinmann says. "People don't realize that, even if they guit smoking years ago, they could still be at risk and should talk to their doctors about it."

The best way to prevent COPD is not to smoke. If work requires exposure to heavy dust, wear protective gear. Try to steer clear of secondhand smoke and other lung irritants that can contribute to COPD.

COPD has no cure. However, treat-

ments and lifestyle changes can help you feel better, stay more active and slow the progress of the disease. That's why it's important to recognize COPD if you have it. Then you can take steps to reduce the complications and progression of the disease.

If you think you might have—or are at risk for—COPD, see your health care provider and ask for a simple breathing test called spirometry. Together, you can come up with a plan to manage COPD and improve your quality of life.



### Web Links

For more information about COPD, see this story online:

http://newsinhealth.nih.gov/2009/November/feature2.htm

# **Health Capsules**

For links to more information, see these stories online: http://newsinhealth.nih.gov/2009/November/capsules.htm

### **Cocaine Vaccine Shows Promise**

An experimental anti-cocaine vaccine reduced cocaine use in a recent clinical trial. The result is the first successful demonstration of a vaccine against an illegal drug of abuse.

Like vaccines against infectious diseases, the anti-cocaine vaccine stimulates the immune system to produce antibodies. These attach to cocaine in the blood and prevent cocaine from passing into the brain.

Researchers funded by NIH randomly assigned 115 patients to receive either the anti-cocaine vaccine or an inactive vaccine. The patients received 5 vaccinations over a 12-week period. All attended weekly relapse-prevention therapy sessions. Their blood was tested for antibodies to cocaine, and their urine for signs of cocaine use.

The participants with the highest antibody levels had significantly

more cocaine-free urine samples (45%) than those who received the inactive vaccine or those who received active vaccine but had low levels of antibodies (35%). The researchers saw no serious side effects.

While the vaccine didn't lead to complete abstinence, the researchers say the results are meaningful. Reducing cocaine use can significantly improve an abusers' quality of life.



### **Definitions**

### Antibodies

Germ-fighting molecules made by the immune system.

### Immune System

The system that protects your body from invading viruses, bacteria and other microscopic threats.

"The results of this study represent a promising step toward an effective medical treatment for cocaine addiction," says Dr. Nora Volkow, director of NIH's National Institute on Drug Abuse. "Provided that larger follow-up studies confirm its safety and efficacy, this vaccine would offer a valuable new approach to treating cocaine addiction, for which no FDA-approved medication is currently available."



### **Featured Web Site**

### Talking Glossary of Genetic Terms

www.genome.gov/glossary

A reliable online resource for more than 200 terms and basic concepts behind today's breakthroughs in genetics and genomics. Recently updated, the next-generation glossary contains several new features, including more than 100 colorful illustrations and more than 2 dozen 3-D animations that allow you to dive in and see genetic concepts in action at the cellular level.



### Caring for Someone with Alzheimer's Disease

Taking care of a person with Alzheimer's disease can be rewarding. It can also be challenging. Sometimes caregivers feel like they're on an emotional roller coaster.

A free 136-page handbook from NIH helps family members and others with the daily changes and challenges of caring for someone with Alzheimer's disease.

Caring for a Person with Alzheimer's Disease: Your Easy-to-Use Guide from

NIH's National Institute on Aging provides easy-to-read tips and advice. Topics include helping family members and others understand Alzheimer's disease, medical issues and medication use, getting help and finding long-term care, along with many other topics.

To view, download or order free copies, visit www.nia.nih.gov/Alzheimers/Publications/CaringAD or call toll-free: 1-800-438-4380. ■

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